

Report of a Resilience Alliance Workshop
Kemp Station, 4-5 September 2002

Short Report, 29 October 2002

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Rapid development is transforming the Northern Highlands Lake District of Wisconsin (NHLD). The expanding number and size of lakeshore buildings and increasing numbers of recreational visitors are creating unprecedented pressures in the region. The Resilience Alliance (RA; URL www.resalliance.org) has identified the NHLD as one of the world's critical regions in transition, and has launched a study of the resilience of the NHLD's social and ecological systems. In March 2002, the RA presented a short course on Managing for Resilience in Social and Ecological Systems in Minocqua, Wisconsin. The course (URL: limnology.wisc.edu/course) used the NHLD as an example to explain general ideas about transformation and resilience in social-ecological systems.

In management for resilience, scenarios are used to confront uncertainty, organize information, imagine options, evaluate choices, and evoke creative discussions about how the region might best develop (Walker et al. 2002, Peterson et al. 2003). A workshop to develop scenarios for the future of the NHLD was held at Kemp Station, Tomahawk Lake, Wisconsin on 4-5 September 2002. The purpose of this brief report is to describe the process for developing the scenarios and four key scenarios that emerged from the workshop. In addition, we discuss the next steps that should be taken.

Workshop attendees brought a diversity of perspectives and experience to the meeting. Viewpoints included those from federal and state resource management agencies, lake associations, out-of-state owners of lakeshore property, realtors, and Native Americans. In addition, academic experts were present from around the world, bringing expertise in fields such as ecology, human demography, economics, and mathematical models of social-ecological systems. Prior to the workshop, participants were given access to background materials on the internet, including the preliminary assessment by Peterson et al. (2002) and the results of the course in March 2002. Several of the attendees at the scenarios workshop had previously attended the short course.

The first round of scenarios derived from three groups of six to nine people each, meeting for about 45 minutes. After plenary discussion of the first round of scenarios, workshop participants reorganized into four groups of four or five people each to design a second round of scenarios.

On the day following the workshop, a small group from the Resilience Alliance attempted to condense the scenarios into a minimal set that seemed to capture the key points. These key contrasts were:

1. Tourism versus new economic opportunity
2. External versus local/regional control
3. Ecological development versus non-ecological development
4. Community ethic versus “rugged individualism”
5. Adaptive versus reactive decision-making

In the remainder of this section, we present brief summaries of each of these four scenarios. Much richer and detailed descriptions of the scenarios are now being written, and these completed scenarios will follow with the full report in December.

In the next version of the report, we will include a short description of the NHLD based on Peterson et al. 2002. Also, we will write a brief summary of the history of the NHLD up to the present, based on the history developed by participants in the short course. This brief history will set the stage for the following scenarios.

Scenario 1: Anaheim North

Life in the Northwoods is good in 2002. There are plenty of forests, lakes, lots of space, good people and just enough commercial activity to get what a person needs. Conflicts are minimal, usually between motorized sports fans and quiet sports enthusiasts, however new conflicts seem to be arising as population and recreation increases. The road to Minocqua is expanded into a four-lane highway in early 2005. Economic downturn of the early 21st century has generated a sort of back-to-the-land movement of young people in their 30s, creating an influx of part-time and full-time residents between 2005 and 2012, as well as an increase in new schools, parks, community centers and other facilities. Tensions between the old-timers and this new group arise, due to their differing visions of the Northwoods. The DNR is trying to satisfy everyone, but therefore will likely satisfy no one. Adding to the conflicts, a series of resource crises in the NHLD include chronic wasting disease and invasive species. The WDNR is being blamed for resulting public health problems. Meanwhile, national chains such as Home Depot and Target arrive in Minocqua. Neither young folks or old-timers are happy with the changes in the area, and they begin to move farther into the northwoods. In 2012, the Rhinelander airport is expanded to handle jumbo jets. Disney-like recreation parks become common, with increasing numbers of amusement parks, water parks, and associated strip malls. In 2025, Loon World itself, with 500 new minimum wage jobs, opened in Minocqua. The economy, now supported almost entirely by tourism, fluctuates from year to year due to oil market and travel industry trends. Taxes increase and counties struggle to provide public services. By 2025, the Northwoods are transformed. Total economic flow increases, but most of the profit flows out of the NHLD. Pollution increases. Fish, game and forest resources decline but large private reserves continue to provide to those who can afford it, while the gap between rich and poor becomes greater.

Scenario 2: Walleye Commons

In the 2000s, national and global economic growth accelerate due to expanding globalization and peaceful international relations. As wealth spread worldwide, many regional conflicts are resolved. However, life in the Northern Highlands is experiencing social and ecological problems. A series of warm winters, accompanied by the spread of Chronic Wasting Disease and forest fires, results in the loss of tourism. The DNR is blamed for much of the resource conflicts, zoning rules are relaxed and motor sports and salvage logging are promoted. Along with the decline in tourism, fewer people move to the area and more local people move out to find work. Native people increasingly dominate politics in the NHLD, and cultural (native) tourism emerges. The native population grows to roughly 40% of the population, and while still a minority, an increasing number of people identify northwoodiness with Objibwe ways. In 2025, people in the area are not much better off than they were in 2000, and relatively much worse off than Wisconsin as a whole. However, the people of the NHLD now say that their low incomes are more than made up for by their rural lifestyle.

Scenario 3: Northwoods Quilt

In the 2000s there is a gradual realization in the northwoods community that the quality of life is deteriorating. After a winter with little snow, a hot summer brings lots of noisy tourists to the region. Due to the growing social and political tensions and some valid economic arguments, lake associations approach the county planners to develop a zoning plan for the region. The outcome is a plan that creates a 'Lake Triage'. Lakes are designated for specific uses—powerboating and jet-skis are restricted to watersport lakes while canoeing and other 'silent uses' are restricted to others. These changes lead to an increase the popularity of the DNR and economic diversity increases. By 2015, social changes are occurring. A strong class distinction develops between 'lakies', who own property on or near the water, and 'landies', people who live far from lakes. In the midst of this conflict, a serial killer brutally murders mountain bikers in the area. Although the killer is quickly brought to justice, tourism decreases sharply and some recent inhabitants move out of the area. Property values decrease as the region becomes less welcoming. Fortunately, the region is in many ways buffered by the diverse composition of its landscape. Ecotourism surges in the US, and at the start of 2025, NHLD inhabitants are optimistic about their future prospects as a center of green ecotourism.

Scenario 4: Refugee Revolution

On April 3, 2003, a private propeller plane flying over Chicago explodes in midair, dispersing two tanks of radioactive dust in a wide cloud across the Loop District. To make matters worse, the dirty bomb is accompanied by a massive truck bomb that levels the Chicago Board of Trade. Within a few weeks, ten thousand owners of second homes start the tourist season early in the Northwoods. Many of these seasonal residents have come to stay, causing a great deal of uncertainty for city planners. Squatters are occupying seasonal homes, hoping for work in the area. Conflicts arise among year-round residents, including the tribes, and refugees. The tourism industry has its own problems as the economy changes due to the new arrivals. Many lake associations and environmentalists argue that certain lakes should be available only to the individuals living along them. Under pressure, the DNR re-asserts the laws which guarantee that the lakes will remain public access resources. Regional leaders soon begin to realize the change may be permanent and begin to plan regional-scale infrastructure changes to use this opportunity to grow, by expanding the Rhinelander airport and bringing larger chain stores to Minocqua. By 2025, the NHLD has a rapidly

evolving power structure within and among lake associations, nearly unmanageable challenges for the DNR, strongly increased pressures on the lake resources, a dramatic change in elected officials' political constituency, uncertainty about the role of the tribes, and increased demands for services with no substantial increase in the tax base. Saying that a dirty bomb has put them here, but the northwoods spirit convinced them to stay, the refugees pledge to bring only the best part of the city with them. They point out the similarities between their new group and the tough early Wisconsin residents who clawed their way to a new life in the state.

Comparison with other regional scenario projects

This description of so-called archetypes is an attempt to characterize the elements of the possible scenarios for the future that seem to be common in various case studies by the Resilience Alliance. The main drivers of the social ecological systems and scenarios are demographics and consumption and use of ecosystem services. Furthermore, we may group different sets of assumptions on vulnerability of ecosystems, values of people, and the ability to self organize.

The following archetypes seem to appear in all the sets of scenarios. The scenario descriptions relate to the myths of nature as described in Holling et al. (2002) and Janssen (2002). These myths include the myth of development, ecological disaster, harmony and resilience. Comprehensive descriptions will be included in the full report. In the full report, we will also include a comparison with the Kristianstad Water Kingdom in Sweden, and the Golbourn-Broken Catchment in Australia.

Next Steps

Next steps in the NHLD:

1. Meet with representatives of groups who could not attend the meeting, to ask their opinion of the scenarios.
2. Develop outreach tools and mechanisms to increase discussion of our findings with local people.

Next Steps for the Resilience Alliance Project:

1. Ground the scenarios in literature, data and models; some specific points are (a) data for tourism trends, (b) history of places where tourism has declined (Catskills?), (c) long-term or paleoecological studies of lake districts hit by prolonged drought, (d) data on magnitude of summer recreational economy versus winter, (e) data on number of summer visitors who are homeowners versus renters versus campers, (f) examine history of WDNR and compare with original founding principles of Wisconsin Department of Conservation.
2. Compare and contrast with other RA case studies
3. Develop new research based on ideas developed here; some examples include (a) spatial models for dynamics of fishery and exotics, (b) landscape study of vulnerability of lakes to eutrophication, based on landscape position, hydrology and morphometry, (c) compare the institutions (UW, WDNR, WAL, tribes,

counties, lake associations) with respect to current contributions and potential contributions to innovation and action in the region.

References

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